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# Utility News

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## Water Quality Report is Included in this Issue

The Environmental Protection Agency requires the City of Gardner to annually provide you an annual Water Quality Report. **The 2006 Consumer Confidence Drinking Water Report is part of this utility bill.** The brochure reports findings to you on the levels of chemicals in the City of Gardner's drinking water.



## Odd/Even Watering is Still Needed

The City of Gardner is requesting cooperation from its Citizens to water using the odd/even system; i.e. even numbered houses water on even days and odd numbered houses water on odd days. This plan helps stabilize peak water demands on the system, while making better use of available resources.

## Summer Outdoor Water Saving Tips

- Don't over water your lawn. As a general rule, lawns only need watering every five to seven days in the summer. A hearty rain eliminates the need for watering for up to two weeks. Most of the year, lawns only need one inch of water per week.
- Water lawns during the early morning hours when temperatures and wind speed are the lowest. This reduces losses from evaporation.
- Raise the lawn mower blade to at least three inches or to its highest level. A higher cut encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely-clipped lawn.
- Avoid over fertilizing your lawn. Fertilizer applications increase the need for water. Apply fertilizers which contain slow-release, water-insoluble forms of nitrogen.
- Use mulch to retain moisture in the soil. Mulch also helps control weeds that compete with landscape plants for water.
- Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need water as frequently and usually will survive a dry period without watering. Group plants together based on similar water needs.
- Do not leave sprinklers or hoses unattended. A garden hose can pour out 600 gallons or more in only a few hours. Use a kitchen timer to remind yourself to turn sprinklers off.
- Plant it smart. Drought efficient landscaping is a great way to design, install and maintain both your plants and irrigation system. More importantly, it will save time, money and water.



# **CITY OF GARDNER**

## **Consumer Confidence Report – 2006**

### **Covering Calendar Year – 2005**

This Consumer Report provides general information from the Environmental Protection Agency and water quality data for Calendar Year 2005. To learn more about your drinking water, please attend any of the regularly scheduled Council Meetings which are held the 1st and 3rd Mondays of each month. For more information contact, Mike Howard at 913-856-0914 or visit [www.gardnerkansas.gov](http://www.gardnerkansas.gov).

We treat your water to remove several contaminants and we also add disinfectant to protect you against microbial contaminants. The Safe Drinking Water Act (SDWA) required states to develop a Source Water Assessment (SWA) for each public water supply that treats and distributes raw source water in order to identify potential contamination sources. The state has completed an assessment of our source water. For results of the source water assessment, please contact us or view the results on line at [www.kdheks.gov/nps/swap/SWreports.html](http://www.kdheks.gov/nps/swap/SWreports.html).

#### **Message from EPA**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer under going chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in sources of water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water run-off, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, may come from a variety of sources such as storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system tested a minimum of 15 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio.

### Water Quality Data

The tables below list all of the drinking water contaminants for which tests were done. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2005. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. The bottom line is that the water that is provided to you is safe.

Last year we notified you of areas where we exceeded limits. In the older parts of town where there is lead solder in the home piping system, we exceeded the lead levels in some homes. This was corrected with adjustments to the pH, as well as instructions on ensuring that the water in those pipes does not sit for too long or that you run your tap longer to bring in fresh water prior to use. You were also notified about the exceedence in Total Organic Compounds (TOC), Total Haloacetic Acids (HAA5) and Total Trilomethanes (TTHM) where there were new EPA rules recently assigned. Higher TOC levels allows for higher HAA5's and TTHM's, byproducts of the treatment process. The Hillsdale Plant was adjusted to come into compliance and the 50 year old Gardner Lake plant was put out of service after several adjustments failed to bring it into compliance. The City addressed all of these issues and is in compliance.

### Terms & Abbreviations

**Maximum Contaminant Level Goal (MCLG):** the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** the "Maximum Allowed" MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Action Level (AL):** the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

**Parts per Million (ppm)** or milligrams per liter (mg/l)    **Parts per Billion (ppb)** or micrograms per liter (µg/l)

**Picocuries per Liter (pCi/L):** picocuries per liter is a measure of the radioactivity in water.

**Nephelometric Turbidity Unit (NTU):** nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Secondary Maximum Containment Level (SMCL):** monitored but not regulated.

### **Testing Results for the CITY OF GARDNER**

In reading the data below, please compare the MCL column to the Highest Value column or Highest RAA column. The range column shows the lowest and highest test results for that specific item.

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2005				

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ATRAZINE	12/6/2005	0.77	0.33-0.77	ppb	3	3	Runoff from herbicide used on row crops
BARIUM	2/16/2005	0.073	0.063-0.073	ppm	2	2	Discharge from metal refineries;
FLUORIDE	1/26/2005	1.3	0.8-1.3	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth.
NITRATE (AS N)	2/16/2005	3.7	0.3-3.7	ppm	10	10	Runoff from fertilizer use
TURBIDITY	2/16/2005	0.43	0.22-0.43	NTU	1.0	-	Soil runoff

Disinfection Byproducts	Monitoring Period	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2005	73	12-96	ppb	60	0	By-product of drinking water disinfection
TOTAL TRIHLOMETHANES (TTHM)	2005	78	54-100	ppb	80	0	By-product of drinking water chlorination



Lead and Copper	Collection Date	90th Percentile	Unit	AL	Sites Over AL	Typical Source
COPPER	2005	0.3	ppm	1.3	0	Corrosion of household plumbing systems
LEAD	2005	17	ppb	15	6	Corrosion of household plumbing systems

Radionuclides	Collection Date	Location	Highest Value	Range	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, INCLDNG RA & U, EXCLDNG RN	6/13/2005	TP001 ABAND	10	10	piC/l	15	0	Erosion of natural deposits

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	SMCL	MCLG
ALKALINITY, TOTAL	1/26/2005	150	95 - 150	MG/L	300	60
ALUMINUM	2/16/2005	0.07	0.012 - 0.07	MG/L	0.05	-
CALCIUM	2/16/2005	58	52 - 58	MG/L	200	75
CARBON, TOTAL ORGANIC (TOC)	6/30/2005	12	2.4 - 12	ppm	-	-
CHLORIDE	2/16/2005	33	27 - 33	MG/L	250	20
CONDUCTIVITY	2/16/2005	480	390 - 480	UMHOS/CM	1500	-
CORROSIVITY	2/19/2003	0.57	0.127 - 0.57	LANG	0	-
HARDNESS, TOTAL (AS CaCO3)	2/16/2005	170	150 - 170	MG/L	400	200
MAGNESIUM	2/16/2005	7.3	5.8 - 7.3	MG/L	150	50
MANGANESE	2/16/2005	0.014	0.0048 - 0.014	MG/L	0.05	-
NICKEL	2/16/2005	0.0029	0.0026 - 0.0029	MG/L	0.1	0.1
PH	2/16/2005	7.7	7.5 - 7.7	PH	8.5	-
POTASSIUM	2/16/2005	4.1	3.8 - 4.1	MG/L	100	20
PROMETON (P-CYMENE)	6/13/2005	0.43	0.2 - 0.43	UG/L	-	-
SILICA	2/16/2005	4.4	3.6 - 4.4	MG/L	50	-
SODIUM	2/16/2005	31	16 - 31	MG/L	100	20
SOLIDS, TOTAL DISSOLVED (TDS)	2/16/2005	250	210 - 250	MG/L	500	-
SULFATE	2/16/2005	22	20 - 22	MG/L	250	-
ZINC	2/16/2005	0.0083	0.0051 - 0.0083	MG/L	5	-

During the 2005 calendar year, we had the below noted violation(s) of drinking water regulations.  
Total Organic Carbon(TOC)-inadequate disinfection byproduct precursor removal 2005.  
Total Haloacetic Acids(HAA5)-exceeded quarterly running annual average 2005.

Any Additional Required Health Effects Language or Violation Notices:

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Total organic carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts (DBPs). These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increase risk of getting cancer.

